Devi, S.
10/606618

FILE 'CAPLUS' ENTERED AT 16:41:41 ON 07 JUL 2005

FILE 'MEDLINE' ENTERED AT 16:41:41 ON 07 JUL 2005

FILE 'BIOSIS' ENTERED AT 16:41:41 ON 07 JUL 2005

FILE 'EMBASE' ENTERED AT 16:41:41 ON 07 JUL 2005

FILE 'WPIDS' ENTERED AT 16:41:41 ON 07 JUL 2005

FILE 'JICST-EPLUS' ENTERED AT 16:41:41 ON 07 JUL 2005

FILE 'JAPIO' ENTERED AT 16:41:41 ON 07 JUL 2005

FILE 'PHIC' ENTERED AT 16:41:41 ON 07 JUL 2005

FILE 'PHIN' ENTERED AT 16:41:41 ON 07 JUL 2005

FILE 'TOXCENTER' ENTERED AT 16:41:41 ON 07 JUL 2005

- Author (s)

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L1          834 SEA ABB=ON  PLU=ON  "JUDD R"?/AU
L2         2653 SEA ABB=ON  PLU=ON  ("MANNING S"? OR "MANNING D"?)/AU
L3           16 SEA ABB=ON  PLU=ON  L1 AND L2
L4           12 SEA ABB=ON  PLU=ON  (L1 OR L2) AND (OMP85 OR (OMP OR OUTER
                MEMBRAN?)(S)(85 OR 85KD?))
L5           16 SEA ABB=ON  PLU=ON  L3 OR L4
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L5 ANSWER 1 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:	2002:505234 CAPLUS
DOCUMENT NUMBER:	137:58692
TITLE:	**Outer membrane** proteins of **85** kDa of Neisseria gonorrhoeae and Neisseria meningitidis and their use in diagnosis and treatment of infections
INVENTOR(S):	**Judd, Ralph C.; Manning, D. Scott**
PATENT ASSIGNEE(S):	USA
SOURCE:	U.S. Pat. Appl. Publ., 30 pp., Cont. of U. S. Ser. No. 177,039. CODEN: USXXCO
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002086028	A1	20020704	US 2001-994192	20011126

US 6610306	B2	20030826		
US 2005074458	A1	20050407	US 2003-606618	20030626
PRIORITY APPLN. INFO.:			US 1998-177039	A1 19981022
			US 2001-994192	A1 20011126

AB Nucleic acid and amino acid sequences of the **Omp85** proteins (**outer membrane** proteins of **85** kDa) of N. gonorrhoeae and N. meningitidis, and fragments thereof are provided. These proteins are useful in vaccines, therapeutic and diagnostic compns. in the prevention, treatment and diagnosis of non-symptomatic or symptomatic gonococcal or meningococcal infections. Antibodies to these proteins are another embodiment of the invention. Claimed nucleotide sequence of Neisseria meningitidis **OMP85** gene is missing.

L5 ANSWER 2 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:278113 CAPLUS
DOCUMENT NUMBER: 132:304309
TITLE: Sequences of Neisseria gonorrhoeae and Neisseria meningitidis **OMP85** proteins, and uses thereof in diagnostic, therapeutic, and drug screening applications
INVENTOR(S): **Judd, Ralph C.; Manning, Scott D.**
PATENT ASSIGNEE(S): University of Montana, USA
SOURCE: PCT Int. Appl., 98 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000023595	A1	20000427	WO 1998-US22352	19981022
W: CA, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2347849	AA	20000427	CA 1998-2347849	19981022
EP 1123403	A1	20010816	EP 1998-953873	19981022
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
EP 1535928	A2	20050601	EP 2005-3039	19981022
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
PRIORITY APPLN. INFO.:			EP 1998-953873	A3 19981022
			WO 1998-US22352	W 19981022

AB The invention provides DNA and protein sequences of a Neisseria gonorrhoeae and Neisseria meningitidis **85** kDa **outer membrane** protein (**OMP85**). The invention also relates to vaccine compns., therapeutic compns. and diagnostic compns. for use in the prevention, treatment and diagnosis of symptomatic or non-symptomatic gonococcal and/or meningococcal infections. Antibodies are developed to these proteins and are also useful in the compns. and methods described herein.
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR

THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:559277 CAPLUS
DOCUMENT NUMBER: 129:172866
TITLE: **Omp85** proteins of Neisseria gonorrhoeae and Neisseria meningitidis are similar to Haemophilus influenzae D-15-Ag and Pasteurella multocida Oma87
AUTHOR(S): **Manning, D. Scott**; Reschke, Dennis K.; **Judd, Ralph C.**
CORPORATE SOURCE: Division Biological Sciences, The University Montana, Missoula, MT, 59812-1002, USA
SOURCE: Microbial Pathogenesis (1998), 25(1), 11-21
CODEN: MIPAEV; ISSN: 0882-4010
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The genes encoding homologous **85** kDa **outer membrane** proteins of Neisseria gonorrhoeae and Neisseria meningitidis have been cloned and sequenced. The gonococcal gene, **omp85**, was identified by screening a genomic library with an antiserum raised against purified gonococcal outer membranes. The gene encoded a 792 amino acid protein, **Omp85**, having a typical signal peptide and a carboxyl-terminal phenylalanine characteristic of outer membrane proteins. The amino acid sequence was similar to that of the D15 protective surface antigen (D-15-Ag) of Haemophilus influenzae, and the Oma87 of Pasteurella multocida. Southern anal. demonstrated that **omp85** was present as a single copy in N. gonorrhoeae and N. meningitidis. PCR amplification was used to obtain a clone of the N. meningitidis **omp85** homolog. Sequence anal. revealed that the N. meningitidis **Omp85** was 95% identical to the N. gonorrhoeae **Omp85**. (c) 1998 Academic Press.
REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1997:214782 CAPLUS
DOCUMENT NUMBER: 126:237186
TITLE: Generation of antiserum to specific epitopes
AUTHOR(S): Marchion, Douglas C.; **Manning, Donald S.**; Shafer, William M.; **Judd, Ralph C.**
CORPORATE SOURCE: Division of Biological Sciences, University of Montana, Missoula, MT, USA
SOURCE: Molecular Biotechnology (1996), 6(3), 231-240
CODEN: MLBOEO; ISSN: 1073-6085
PUBLISHER: Humana
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The ability to prevent disease by immunization with subunit vaccines that incorporate specific epitopes was demonstrated by DiMarchi et al., who used a synthetic peptide to protect cattle against foot-and-mouth disease. However, generation of antibody to peptide antigens is often difficult owing to the small mol. mass and limited chemical complexity. The authors tested the hypothesis that recombinant DNA and synthetic peptide techniques would make it possible to

stimulate vigorous immune responses to specific epitopes of an outer membrane protein of Neisseria gonorrhoeae. The MtrC AP1 sequence from the invariant MtrC gonococcal lipoprotein was genetically fused to maltose binding protein. The resultant fusion protein was used as the primary immunogen to stimulate MtrC AP1-specific antiserum. To enhance antibody production specific to MtrC AP1, boosting immunizations were performed with synthetic MtrC AP1 sequence contained in a multiple antigenic peptide system immunogen. The MtrC AP1-specific antiserum strongly recognized the MtrC protein on Western blots and appeared to bind native MtrC protein in situ. The generation of antibody in this fashion provides the technol. to produce antibody to defined epitopes of any protein, including those found in the gonococcal outer membrane.

L5 ANSWER 5 OF 16 MEDLINE on STN
ACCESSION NUMBER: 1998379445 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9705245
TITLE: **Omp85** proteins of Neisseria gonorrhoeae and Neisseria meningitidis are similar to Haemophilus influenzae D-15-Ag and Pasteurella multocida Oma87.
AUTHOR: **Manning D S**; Reschke D K; **Judd R C**
CORPORATE SOURCE: Division of Biological Sciences, University of Montana, Missoula 59812-1002, USA.
CONTRACT NUMBER: AI21236 (NIAID)
AI37777 (NIAID)
SOURCE: Microbial pathogenesis, (1998 Jul) 25 (1) 11-21.
Journal code: 8606191. ISSN: 0882-4010.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199811
ENTRY DATE: Entered STN: 19990106
Last Updated on STN: 19990106
Entered Medline: 19981106

AB The genes encoding homologous **85** kDa **outer membrane** proteins of Neisseria gonorrhoeae and Neisseria meningitidis have been cloned and sequenced. The gonococcal gene, **omp85**, was identified by screening a genomic library with an antiserum raised against purified gonococcal outer membranes. The gene encoded a 792 amino acid protein, **Omp85**, having a typical signal peptide and a carboxyl-terminal phenylalanine characteristic of outer membrane proteins. The amino acid sequence was similar to that of the D15 protective surface antigen (D-15-Ag) of Haemophilus influenzae, and the Oma87 of Pasteurella multocida. Southern analysis demonstrated that **omp85** was present as a single copy in N. gonorrhoeae and N. meningitidis. PCR amplification was used to obtain a clone of the N. meningitidis **omp85** homologue. Sequence analysis revealed that the N. meningitidis **Omp85** was 95% identical to the N. gonorrhoeae **Omp85**.

L5 ANSWER 6 OF 16 MEDLINE on STN
ACCESSION NUMBER: 97220810 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9067972
TITLE: Generation of antiserum to specific epitopes.
AUTHOR: Marchion D C; **Manning D S**; Shafer W M; **Judd R C**
CORPORATE SOURCE: Division of Biological Sciences, University of Montana, Missoula, USA.

CONTRACT NUMBER: RO1AI21236 (NIAID)
SOURCE: Molecular biotechnology, (1996 Dec) 6 (3) 231-40. Journal code: 9423533. ISSN: 1073-6085.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199706
ENTRY DATE: Entered STN: 19970709
Last Updated on STN: 20021026
Entered Medline: 19970623

AB The ability to prevent disease by immunization with subunit vaccines that incorporate specific epitopes was demonstrated by DiMarchi et al. (1), who used a synthetic peptide to protect cattle against foot-and-mouth disease. However, generation of antibody to peptide antigens is often difficult owing to the small molecular mass and limited chemical complexity. We tested the hypothesis that recombinant DNA and synthetic peptide techniques would make it possible to stimulate vigorous immune responses to specific epitopes of an outer membrane protein of Neisseria gonorrhoeae. The MtrC AP1 sequence from the invariant MtrC gonococcal lipoprotein was genetically fused to maltose binding protein. The resultant fusion protein was used as the primary immunogen to stimulate MtrC AP1-specific antiserum. To enhance antibody production specific to MtrC AP1, boosting immunizations were performed with synthetic MtrC AP1 sequence contained in a multiple antigenic peptide system immunogen. The MtrC AP1-specific antiserum strongly recognized the MtrC protein on Western blots and appeared to bind native MtrC protein in situ. The generation of antibody in this fashion provides the technology to produce antibody to defined epitopes of any protein, including those found in the gonococcal outer membrane. The ability of those antibodies to inhibit bacterial growth or to activate complement protein can then be tested.

L5 ANSWER 7 OF 16 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 2003:435907 BIOSIS
DOCUMENT NUMBER: PREV200300435907
TITLE: **OMP85** protein of neisseria meningitidis, compositions containing the same and methods of use thereof.
AUTHOR(S): **Judd, Ralph C.** [Inventor, Reprint Author]; **Manning, D. Scott** [Inventor]
CORPORATE SOURCE: Florence, MT, USA
ASSIGNEE: The University of Montana, Missoula, MO, USA
PATENT INFORMATION: US 6610306 20030826
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Aug 26 2003) Vol. 1273, No. 4. http://www.uspto.gov/web/menu/patdata.html. e-file. ISSN: 0098-1133 (ISSN print).
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 17 Sep 2003
Last Updated on STN: 17 Sep 2003

AB Nucleic acid and amino acid sequences of the **Omp85** proteins of N. gonorrhoeae and N. meningitidis, and fragments thereof are useful in vaccine compositions, therapeutic compositions and diagnostic compositions for use in the prevention, treatment and diagnosis of non-symptomatic gonococcal infection or symptomatic

disease and non-symptomatic meningococcal infection and symptomatic disease. Antibodies are developed to these proteins and also useful in the compositions and methods described herein.

L5 ANSWER 8 OF 16 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 1998:405869 BIOSIS
DOCUMENT NUMBER: PREV199800405869
TITLE: **Omp85** proteins of Neisseria gonorrhoeae and Neisseria meningitidis are similar to Haemophilus influenzae D-15-Ag and Pasteurella multicoda Oma87.
AUTHOR(S): **Manning, D. Scott**; Reschke, Dennis K.; **Judd, Ralph C.** [Reprint author]
CORPORATE SOURCE: Div. Biol. Sci., Univ. Montana, Missoula, MT 59812-1002, USA
SOURCE: Microbial Pathogenesis, (July, 1998) Vol. 25, No. 1, pp. 11-21. print.
CODEN: MIPAEV. ISSN: 0882-4010.
DOCUMENT TYPE: Article
LANGUAGE: English
OTHER SOURCE: Genbank-U81959
ENTRY DATE: Entered STN: 21 Sep 1998
Last Updated on STN: 21 Sep 1998
AB The genes encoding homologous **85** kDa **outer membrane** proteins of Neisseria gonorrhoeae and Neisseria meningitidis have been cloned and sequenced. The gonococcal gene, **omp85**, was identified by screening a genomic library with an antiserum raised against purified gonococcal outer membranes. The gene encoded a 792 amino acid protein, **Omp85**, having a typical signal peptide and a carboxyl-terminal phenylalanine characteristic of outer membrane proteins. The amino acid sequence was similar to that of the D15 protective surface antigen (D-15-Ag) of Haemophilus influenzae, and the Oma87 of Pasteurella multocida. Southern analysis demonstrated that **omp85** was present as a single copy in N. gonorrhoeae and N. meningiditis. PCR amplification was used to obtain a clone of the N. meningitidis **omp85** homologue. Sequence analysis revealed that the N. meningitidis **Omp85** was 95% identical to the N. gonorrhoeae **Omp85**.

L5 ANSWER 9 OF 16 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 1997:157262 BIOSIS
DOCUMENT NUMBER: PREV199799456465
TITLE: Generation of antiserum to specific epitopes.
AUTHOR(S): Marchion, Douglas C.; **Manning, Donald S.**; Shafer, William M.; **Judd, Ralph C.** [Reprint author]
CORPORATE SOURCE: Div. Biol. Sci., Univ. Montana, Missoula, MT, USA
SOURCE: Molecular Biotechnology, (1996) Vol. 6, No. 3, pp. 231-240.
ISSN: 1073-6085.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 15 Apr 1997
Last Updated on STN: 15 Apr 1997
AB The ability to prevent disease by immunization with subunit vaccines that incorporate specific epitopes was demonstrated by DiMarchi et al. (1), who used a synthetic peptide to protect cattle against foot-and-mouth disease. However, generation of antibody to peptide

antigens is often difficult owing to the small molecular mass and limited chemical complexity. We tested the hypothesis that recombinant DNA and synthetic peptide techniques would make it possible to stimulate vigorous immune responses to specific epitopes of an outer membrane protein of Neisseria gonorrhoeae. The MtrC AP1 sequence from the invariant MtrC gonococcal lipoprotein was genetically fused to maltose binding protein. The resultant fusion protein was used as the primary immunogen to stimulate MtrC AP1-specific antiserum. To enhance antibody production specific to MtrC AP1, boosting immunizations were performed with synthetic MtrC AP1 sequence contained in a multiple antigenic peptide system immunogen. The MtrC AP1-specific antiserum strongly recognized the MtrC protein on Western blots and appeared to bind native MtrC protein in situ. The generation of antibody in this fashion provides the technology to produce antibody to defined epitopes of any protein, including those found in the gonococcal outer membrane. The ability of those antibodies to inhibit bacterial growth or to activate complement protein can then be tested.

L5 ANSWER 10 OF 16 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN

ACCESSION NUMBER: 1998263454 EMBASE
TITLE: **Omp85** proteins of Neisseria gonorrhoeae and Neisseria meningitidis are similar to Haemophilus influenzae D-15-Ag and Pasteurella multocida Oma87.
AUTHOR: **Manning D.S.**; Reschke D.K.; **Judd R.C.**
CORPORATE SOURCE: R.C. Judd, Division of Biological Sciences, University of Montana, Missoula, MT 59812-1002, United States
SOURCE: Microbial Pathogenesis, (1998) Vol. 25, No. 1, pp. 11-21.
Refs: 25
ISSN: 0882-4010 CODEN: MIPAEV
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 19980820
Last Updated on STN: 19980820

AB The genes encoding homologous **85** kDa **outer membrane** proteins of Neisseria gonorrhoeae and Neisseria meningitidis have been cloned and sequenced. The gonococcal gene, **omp85**, was identified by screening a genomic library with an antiserum raised against purified gonococcal outer membranes. The gene encoded a 792 amino acid protein, **Omp85**, having a typical signal peptide and a carboxyl-terminal phenylalanine characteristic of outer membrane proteins. The amino acid sequence was similar to that of the D15 protective surface antigen (D-15-Ag) of Haemophilus influenzae, and the Oma87 of Pasteurella multocida. Southern analysis demonstrated that **omp85** was present as a single copy in N. gonorrhoeae and N. meningiditis. PCR amplification was used to obtain a clone of the N. meningitidis **omp85** homologue. Sequence analysis revealed that the N, meningitidis **Omp85** was 95% identical to the N. gonorrhoeae **Omp85**.

L5 ANSWER 11 OF 16 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

ACCESSION NUMBER: 2005-272369 [28] WPIDS
CROSS REFERENCE: 2002-642234 [69]
DOC. NO. CPI: C2005-085144

TITLE: New isolated nucleic acid encoding **outer membrane** protein **85** (**Omp85**) of Neisseria gonorrhoeae or Neisseria meningitidis, useful for preventing, treating, or diagnosing non-symptomatic gonococcal infection or meningococcal infection.

DERWENT CLASS: B04 D16

INVENTOR(S): **JUDD, R C; MANNING, D S**

PATENT ASSIGNEE(S): (UYMO-N) UNIV MONTANA

COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2005074458	A1	20050407	(200528)*		41

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2005074458	A1 Cont of	US 1998-177039	19981022
	Cont of	US 2001-994192	20011126
		US 2003-606618	20030626

FILING DETAILS:

PATENT NO	KIND	PATENT NO
US 2005074458	A1 Cont of	US 6610306

PRIORITY APPLN. INFO: US 1998-177039 19981022; US 2001-994192 20011126; US 2003-606618 20030626

AN 2005-272369 [28] WPIDS

CR 2002-642234 [69]

AB US2005074458 A UPAB: 20050504

NOVELTY - A nucleic acid molecule comprises a fully defined 2379 or 2394 bp sequence (SEQ ID NO. 1 or 3) given in the specification, a sequence capable of hybridizing to it, or its fragment, when expressed in a host cell produces a polypeptide that induces antibodies to N. gonorrhoeae or N. meningitidis, under the control of suitable regulatory sequences which direct expression of the polypeptide in the host cell, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an immunogenic composition comprising (a) a polypeptide or peptide selected from

(i) the polypeptide comprising a fully defined 792 amino acid sequence (SEQ ID NO. 2), a homologue, or a fragment of at least 8 consecutive amino acids in length, which induces antibodies to N. gonorrhoeae in a mammalian subject, or

(ii) a homologue of a sequence comprising a fully defined 797 amino acid sequence (SEQ ID NO. 4), or a fragment of at least 8 consecutive amino acids in length, which induces antibodies to N. gonorrhoeae in a mammalian subject; and (b) a pharmaceutical carrier;

(2) an immunogenic composition comprising (a) a nucleic acid sequence selected from (i) SEQ ID NO. 1, a sequence capable of hybridizing to it, or a fragment, which when expressed in a host cell, produces a polypeptide that induces antibodies to N. gonorrhoeae, or

(ii) SEQ ID NO. 3, a sequence capable of hybridizing to it, or a fragment, which when expressed in a host cell, produces a polypeptide that induces antibodies to N. meningitidis; and (b) a pharmaceutical carrier;

(3) a diagnostic composition comprising at least one component selected from:

(a) the polypeptide of SEQ ID NO. 2, a homologue, or a fragment of at least 8 consecutive amino acids in length, which induces antibodies to N. gonorrhoeae in a mammalian subject;

(b) the polypeptide of SEQ ID NO. 4, a homologue or a fragment of at least 8 consecutive amino acids in length, which induces antibodies to N. gonorrhoeae in a mammalian subject;

(c) a nucleic acid sequence of SEQ ID NO. 1, a sequence capable of hybridizing to it, or a fragment, which when expressed in a host cell, produces a polypeptide that induces antibodies to N. gonorrhoeae;

(d) a nucleic acid sequence of SEQ ID NO. 3, a sequence capable of hybridizing to it, or a fragment, which when expressed in a host cell, produces a polypeptide that induces antibodies to N. meningitidis;

(e) a polypeptide of (a) or (b) that contains, or a nucleic acid sequence of (c) or (d) that encodes, 1-4 conservative amino acid replacements in the amino acid sequence of SEQ ID NO. 2 or 4;

(f) a polypeptide of (a) or (b) that contains, or a nucleic acid sequence of (c) or (d) that encodes, a polypeptide that has at least 85% identity with the sequence of SEQ ID NO. 2 or 4;

(g) a polypeptide of (a) or (b) that contains, or a nucleic acid sequence of (c) or (d) that encodes, a second polypeptide or protein;

(h) a polypeptide fragment of (a) or (b) that contains, or a nucleic acid sequence of (c) or (d) that encodes, a peptide fragment that comprises an amino acid sequence within amino acids 720-745 of SEQ ID NO. 2 or 4; or (i) a polypeptide of (a) or (b) that contains, or a nucleic acid sequence of (c) or (d) that encodes, a peptide fragment that comprises an amino acid sequence within amino acids 1-178 of SEQ ID NO. 2 or 4; and

(i) a suitable detectable label or detection system associated with it; and

(4) a host cell transformed with the molecule above.

ACTIVITY - Antibacterial. No biological data given.

MECHANISM OF ACTION - Gene Therapy; Vaccine.

USE - The nucleic acid and amino acid sequences of **Omp85** protein of N. gonorrhoeae or N. meningitidis are useful as vaccine compositions, therapeutic compositions, and diagnostic compositions for preventing, treating, or diagnosing non-symptomatic gonococcal infection or symptomatic disease and non-symptomatic meningococcal infection and symptomatic disease.

Dwg.0/8

L5 ANSWER 12 OF 16 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

ACCESSION NUMBER: 2002-642234 [69] WPIDS

CROSS REFERENCE: 2005-272369 [28]

DOC. NO. CPI: C2004-014039

TITLE: Novel immunogenic composition for vaccinating against meningococcal or gonococcal infection, comprises **Omp85** protein of Neisseria meningitidis or Neisseria gonorrhoeae, or nucleic acid encoding the protein.

DERWENT CLASS: B04 C06 D16

INVENTOR(S): **JUDD, R C; MANNING, D S**

PATENT ASSIGNEE(S): (JUDD-I) JUDD R C; (MANN-I) MANNING D S; (UYMO-N) UNIV MONTANA
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2002086028	A1	20020704	(200269)*		30
US 6610306	B2	20030826	(200357)		

APPLICATION DETAILS:

PATENT NO	KIND		APPLICATION	DATE
US 2002086028	A1	Cont of	US 1998-177039	19981022
			US 2001-994192	20011126
US 6610306	B2	Cont of	US 1998-177039	19981022
			US 2001-994192	20011126

PRIORITY APPLN. INFO: US 1998-177039 19981022; US 2001-994192 20011126
AN 2002-642234 [69] WPIDS
CR 2005-272369 [28]
AB US2002086028 A UPAB: 20050504
NOVELTY - An immunogenic composition (C) comprises **Omp85** polypeptide (I) comprising a sequence (S1) of 792 or 797 amino acids fully defined in the specification, or its fragment, which induces antibodies to Neisseria gonorrhoeae or N.meningitidis in mammal, or a nucleic acid sequence (S2) comprising 2399 nucleotides fully defined in the specification, or its fragment, encoding (I) in a host cell.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a kit for diagnosing infection with N.gonorrhoeae or N.meningitidis in a human or animal, comprising (I) or its fragment, and a suitable detectable label.

ACTIVITY - Antibacterial.

MECHANISM OF ACTION - Vaccine.

No suitable data given.

USE - (C) is useful for inducing protective immune response in a subject. (C) is also useful for vaccinating a human or animal against non-symptomatic meningococcal or gonococcal infection or symptomatic disease (claimed).

Dwg.0/8

L5 ANSWER 13 OF 16 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2000-339694 [29] WPIDS
DOC. NO. NON-CPI: N2000-254985
DOC. NO. CPI: C2000-103147
TITLE: New isolated **outer membrane** protein **85** of Neisseria gonorrhoeae and N. meningitidis useful for vaccine, therapeutic and diagnostic compositions for gonococcal or meningococcal infections.
DERWENT CLASS: B04 D16 S03
INVENTOR(S): **JUDD, R C; MANNING, S D**
PATENT ASSIGNEE(S): (UYMO-N) UNIV MONTANA
COUNTRY COUNT: 21
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000023595	A1	20000427	(200029)*	EN	98
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE					
W: CA US					
EP 1123403	A1	20010816	(200147)	EN	
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
EP 1535928	A2	20050601	(200536)#	EN	
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000023595	A1	WO 1998-US22352	19981022
EP 1123403	A1	EP 1998-953873	19981022
		WO 1998-US22352	19981022
EP 1535928	A2 Div ex	EP 1998-953873	19981022
		EP 2005-3039	19981022

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1123403	A1 Based on	WO 2000023595
EP 1535928	A2 Div ex	EP 1123403

PRIORITY APPLN. INFO: WO 1998-US22352 19981022; EP 2005-3039 19981022

AN 2000-339694 [29] WPIDS

AB WO 200023595 A UPAB: 20000617

NOVELTY - Isolated **outer membrane** proteins (I) and (II) of Neisseria gonorrhoeae and N. meningitidis, respectively, with an apparent molecular weight of **85kDa**, are new. (I) and (II) comprise the fully defined 792 and 797 amino acid sequences, respectively, or fragments or derivatives of these with at least 80% homology to (I) or (II).

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) nucleic acid sequences (Ia) and (IIa) encoding (I), (II) or their fragments;

(2) nucleic acid molecules (Ib) and (IIb) comprising the nucleic acid sequences under the control of promoters which direct expression of the **Omp85** or fragment in a selected host cell;

(3) host cells (III) transformed with (Ib) and (IIb);

(4) recombinant viruses (IV) comprising (Ib) and (IIb);

(5) preparation and recombinant expression of (I) and (II);

(6) isolated antibodies which bind to (I) and (II) or their fragments;

(7) anti-idiotype antibodies specific for the antibodies of (6);

(8) diagnostic reagents comprising nucleic acid sequences selected from:

(a) nucleic acid sequences encoding (I) and (II), isolated from cellular materials with which they are naturally associated;

(b) the fully defined 2379 or 2394 base pair sequences, or their antisense molecules;

(c) fragments of any of (a) or (b) comprising at least 15 nucleotides in length;

(d) sequences which hybridize to (a) - (c) under stringent

conditions;
(e) allelic variants of any of (a) - (d);
(f) mutants of (a) - (e); and
(g) sequences encoding (I), (II) or their fragments fused to a sequence encoding a second protein; and detectable labels which are associated with their respective sequence;
(9) diagnostic reagents comprising the antibodies and detectable labels;
(10) vaccines comprising (I), (II), fusion proteins or their fragments or (Ia) and (IIa);
(11) methods for identifying compounds which specifically bind to (I), (II) or their fragments comprising contacting the proteins or fragments with a test compound to permit binding of the test compound to (I) or (II) and determining the amount of test compound which is bound to (I) or (II);
(12) a kit for diagnosing infection with N. meningitidis, comprising (II), (IIa), or their fragments, or antibodies against (II) with a detectable label;
(13) compounds identified by (11); and
(14) a method for identifying a pharmacomimetic of (I) or (II), comprising:
(a) identifying a compound, which binds to (I) or (II) by screening the (I) or (II) against a battery of compounds;
(b) performing computer modeling of the three dimensional structure of (I) or (II) or the binding compound to identify a compound with the same three dimensional structure as (I) or (II) or its binding compound; and
(c) screening the selected compound in a biological assay.
ACTIVITY - Antibacterial; antigonococcal; antimeningococcal; immunostimulant.
MECHANISM OF ACTION - Vaccine.
USE - (I), (II), (Ia), (IIa) and their fragments are useful in compositions for use in the prevention, treatment and diagnosis of non-symptomatic gonococcal infection or meningococcal infection and symptomatic disease, by the detection of hybridization complexes. (I) and (II) are also useful in research. (Ia) and (IIa) are useful in the development of diagnostic and antisense probes for use in detecting and diagnosing the above infections. Antigens and antibodies specific for (I) and (II) also provide diagnostic, therapeutic and prophylactic compositions and methods for the treatment or prevention of the infections described above. The antibodies are useful for inducing a protective immune response in humans or animals with N. gonorrhoeae, N. meningitidis, or other Neisseria species (all claimed). The proteins, antibodies and polynucleotide sequences of the present invention may also be used in the screening and development of chemical compounds such as drugs or vaccines.
Dwg.0/8

L5 ANSWER 14 OF 16 TOXCENTER COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:157160 TOXCENTER
COPYRIGHT: Copyright 2005 ACS
DOCUMENT NUMBER: CA13705058692R
TITLE: **Outer membrane** proteins of **85** kDa of Neisseria gonorrhoeae and Neisseria meningitidis and their use in diagnosis and treatment of infections
AUTHOR(S): **Judd, Ralph C.; Manning, D. Scott**
PATENT INFORMATION: US 2002086028 A1 4 Jul 2002
SOURCE: (2002) U.S. Pat. Appl. Publ., 30 pp., Cont. of U. S.

Ser. No. 177,039.
CODEN: USXXCO.
COUNTRY: UNITED STATES
DOCUMENT TYPE: Patent
FILE SEGMENT: CAPLUS
OTHER SOURCE: CAPLUS 2002:505234
LANGUAGE: English
ENTRY DATE: Entered STN: 20020716
Last Updated on STN: 20050426

AB Nucleic acid and amino acid sequences of the **Omp85** proteins (**outer membrane** proteins of **85** kDa) of N. gonorrhoeae and N. meningitidis, and fragments thereof are provided. These proteins are useful in vaccines, therapeutic and diagnostic compns. in the prevention, treatment and diagnosis of non-symptomatic or symptomatic gonococcal or meningococcal infections. Antibodies to these proteins are another embodiment of the invention. Claimed nucleotide sequence of Neisseria meningitidis **OMP85** gene is missing.

L5 ANSWER 15 OF 16 TOXCENTER COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:178084 TOXCENTER
COPYRIGHT: Copyright 2005 ACS
DOCUMENT NUMBER: CA12914172866K
TITLE: **Omp85** proteins of Neisseria gonorrhoeae and Neisseria meningitidis are similar to Haemophilus influenzae D-15-Ag and Pasteurella multocida Oma87
AUTHOR(S): **Manning, D. Scott**; Reschke, Dennis K.; **Judd, Ralph C.**
CORPORATE SOURCE: Division Biological Sciences, The University Montana, Missoula, MT, 59812-1002, USA.
SOURCE: Microbial Pathogenesis, (1998) Vol. 25, No. 1, pp. 11-21.
CODEN: MIPAEV. ISSN: 0882-4010.
COUNTRY: UNITED STATES
DOCUMENT TYPE: Journal
FILE SEGMENT: CAPLUS
OTHER SOURCE: CAPLUS 1998:559277
LANGUAGE: English
ENTRY DATE: Entered STN: 20011116
Last Updated on STN: 20020521

AB The genes encoding homologous **85** kDa **outer membrane** proteins of Neisseria gonorrhoeae and Neisseria meningitidis have been cloned and sequenced. The gonococcal gene, **omp85**, was identified by screening a genomic library with an antiserum raised against purified gonococcal outer membranes. The gene encoded a 792 amino acid protein, **Omp85**, having a typical signal peptide and a carboxyl-terminal phenylalanine characteristic of outer membrane proteins. The amino acid sequence was similar to that of the D15 protective surface antigen (D-15-Ag) of Haemophilus influenzae, and the Oma87 of Pasteurella multocida. Southern anal. demonstrated that **omp85** was present as a single copy in N. gonorrhoeae and N. meningitidis. PCR amplification was used to obtain a clone of the N. meningitidis **omp85** homolog. Sequence anal. revealed that the N. meningitidis **Omp85** was 95% identical to the N. gonorrhoeae **Omp85**. (c) 1998 Academic Press.

L5 ANSWER 16 OF 16 TOXCENTER COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1997:139836 TOXCENTER

DOCUMENT NUMBER: CA12618237186Y
TITLE: Generation of antiserum to specific epitopes
AUTHOR(S): Marchion, Douglas C.; **Manning, Donald S.**; Shafer, William M.; **Judd, Ralph C.**
CORPORATE SOURCE: Division of Biological Sciences, University of Montana, Missoula, MT, USA.
SOURCE: Molecular Biotechnology, (1996) Vol. 6, No. 3, pp. 231-240.
CODEN: MLBOEO. ISSN: 1073-6085.
COUNTRY: UNITED STATES
DOCUMENT TYPE: Journal
FILE SEGMENT: CAPLUS
OTHER SOURCE: CAPLUS 1997:214782
LANGUAGE: English
ENTRY DATE: Entered STN: 20011116
Last Updated on STN: 20020626

AB The ability to prevent disease by immunization with subunit vaccines that incorporate specific epitopes was demonstrated by DiMarchi et al., who used a synthetic peptide to protect cattle against foot-and-mouth disease. However, generation of antibody to peptide antigens is often difficult owing to the small mol. mass and limited chemical complexity. The authors tested the hypothesis that recombinant DNA and synthetic peptide techniques would make it possible to stimulate vigorous immune responses to specific epitopes of an outer membrane protein of Neisseria gonorrhoeae. The MtrC AP1 sequence from the invariant MtrC gonococcal lipoprotein was genetically fused to maltose binding protein. The resultant fusion protein was used as the primary immunogen to stimulate MtrC AP1-specific antiserum. To enhance antibody production specific to MtrC AP1, boosting immunizations were performed with synthetic MtrC AP1 sequence contained in a multiple antigenic peptide system immunogen. The MtrC AP1-specific antiserum strongly recognized the MtrC protein on Western blots and appeared to bind native MtrC protein in situ. The generation of antibody in this fashion provides the technol. to produce antibody to defined epitopes of any protein, including those found in the gonococcal outer membrane.

FILE 'HOME' ENTERED AT 16:42:01 ON 07 JUL 2005

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     (FILE 'HOME' ENTERED AT 16:34:57 ON 07 JUL 2005)
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     FILE 'CAPLUS, MEDLINE, BIOSIS, EMBASE, WPIDS, JICST-EPLUS, JAPIO,
     PHIC, PHIN, TOXCENTER' ENTERED AT 16:36:05 ON 07 JUL 2005
L1           834 SEA ABB=ON  PLU=ON  "JUDD R"?/AU
L*** DEL     828 S "MANNING S"?/AU
L*** DEL       2 S L1 AND L2
L*** DEL     104 S (L1 OR L2) AND (OMP## OR OUTER MEMBRAN?)
L*** DEL      91 S L4 AND (GONORRH? OR MENINGITID? OR MENINGOCOCC? OR GONOC
L*** DEL   19105 S GONOCOCC?
               D KWIC
L*** DEL      12 S (L1 OR L2) AND (OMP85 OR (OUTER MEMBRAN? OR OMP)(3A)85)
L*** DEL      12 S L3 OR L***
L*** DEL       5 DUP REM L*** (7 DUPLICATES REMOVED)
               D 1-5 IBIB ABS

     FILE 'HOME' ENTERED AT 16:39:24 ON 07 JUL 2005

     FILE 'CAPLUS, MEDLINE, BIOSIS, EMBASE, WPIDS, JICST-EPLUS, JAPIO,
     PHIC, PHIN, TOXCENTER' ENTERED AT 16:39:46 ON 07 JUL 2005
L*** DEL      10 S L5 AND 85
               D KWIC
L2           2653 SEA ABB=ON  PLU=ON  ("MANNING S"? OR "MANNING D"?)/AU
L3             16 SEA ABB=ON  PLU=ON  L1 AND L2
L4             12 SEA ABB=ON  PLU=ON  (L1 OR L2) AND (OMP85 OR (OMP OR OUTER
                  MEMBRAN?)(S)(85 OR 85KD?))
L5             16 SEA ABB=ON  PLU=ON  L3 OR L4

     FILE 'CAPLUS, MEDLINE, BIOSIS, EMBASE, WPIDS, JICST-EPLUS, JAPIO,
     PHIC, PHIN, TOXCENTER' ENTERED AT 16:41:41 ON 07 JUL 2005
               D 1-16 IBIB ABS

     FILE 'HOME' ENTERED AT 16:42:01 ON 07 JUL 2005


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     FILE COVERS 1907 - 7 Jul 2005  VOL 143 ISS 2
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     FILE MEDLINE
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FILE LAST UPDATED: 6 JUL 2005 (20050706/UP). FILE COVERS 1950 TO DAT

On December 19, 2004, the 2005 MeSH terms were loaded.

The MEDLINE reload for 2005 is now available. For details enter HELP RLOAD at an arrow promt (=>). See also:

http://www.nlm.nih.gov/mesh/
http://www.nlm.nih.gov/pubs/techbull/nd04/nd04_mesh.html

OLDMEDLINE now back to 1950.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2005 vocabulary.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE BIOSIS
FILE COVERS 1969 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 29 June 2005 (20050629/ED)

FILE RELOADED: 19 October 2003.

FILE EMBASE
FILE COVERS 1974 TO 30 Jun 2005 (20050630/ED)

EMBASE has been reloaded. Enter HELP RLOAD for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE WPIDS
FILE LAST UPDATED: 7 JUL 2005 <20050707/UP>
MOST RECENT DERWENT UPDATE: 200543 <200543/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

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PLEASE CHECK:
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FOR DETAILS. <<<

FILE JICST-EPLUS
FILE COVERS 1985 TO 4 JUL 2005 (20050704/ED)

THE JICST-EPLUS FILE HAS BEEN RELOADED TO REFLECT THE 1999 CONTROLLED TERM (/CT) THESAURUS RELOAD.

FILE JAPIO
FILE LAST UPDATED: 4 JUL 2005 <20050704/UP>
FILE COVERS APR 1973 TO MARCH 31, 2005

<<< GRAPHIC IMAGES AVAILABLE >>>

FILE PHIC
FILE COVERS CURRENT RECORDS AND IS UPDATED DAILY
FILE LAST UPDATED: 7 JUL 2005 (20050707/ED)

FILE PHIN
FILE COVERS 1980 TO 1 JUL 2005 (20050701/ED)

FILE TOXCENTER

FILE COVERS 1907 TO 5 Jul 2005 (20050705/ED)

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TOXCENTER has been enhanced with new files segments and search fields. See HELP CONTENT for more information.

TOXCENTER thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2005 vocabulary. See http://www.nlm.nih.gov/mesh/ and http://www.nlm.nih.gov/pubs/techbull/nd04/nd04_mesh.html for a description of changes.

FILE HOME

Devi, S.
10/606618

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SYSTEM:OS - DIALOG OneSearch
File 65:Inside Conferences 1993-2005/Jul W1
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- Author (s)

Set Items Description
S1 495 AU=(JUDD, R? OR JUDD R?)
S2 1293 AU=(MANNING, S? OR MANNING, D? OR MANNING S? OR MANNING D?)
S3 7 S1 AND S2
S4 6 (S1 OR S2) AND (OMP85 OR (OMP OR OUTER(W)MEMBRAN?)(S)(85 OR 85KD?))
S5 7 S3 OR S4
S6 6 RD (unique items)
>>>No matching display code(s) found in file(s): 65, 113

6/3,AB/1 (Item 1 from file: 65)
DIALOG(R)File 65:Inside Conferences
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03897876 INSIDE CONFERENCE ITEM ID: CN040961136
A new technique of gene integration into the genome of Neisseria gonorrhoeae
Reschke, D. K.; **Manning, D. S.**; **Judd, R. C.**
CONFERENCE: International pathogenic Neisseria conference-11th
ABSTRACTS OF THE INTERNATIONAL PATHOGENIC NEISSERIA CONFERENCE , 1998;
11TH P: 358
Paris, EDK, 1998
ISBN: 2842540158
LANGUAGE: English DOCUMENT TYPE: Conference Selected abstracts
CONFERENCE LOCATION: Nice, France 1998; Nov (199811) (199811)

6/3,AB/2 (Item 1 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)
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09731510 References: 25
TITLE: **Omp85** proteins of Neisseria gonorrhoeae and Neisseria meningitidis are similar to Haemophilus influenzae D-15-Ag and Pasteurella multocida Oma87
AUTHOR(S): **Manning DS**; Reschke DK; **Judd RC (REPRINT)**
CORPORATE SOURCE: UNIV MONTANA,DIV BIOL SCI/MISSOULA//MT/59812 (REPRINT); UNIV MONTANA,DIV BIOL SCI/MISSOULA//MT/59812
PUBLICATION TYPE: JOURNAL
PUBLICATION: MICROBIAL PATHOGENESIS, 1998, V25, N1 (JUL), P11-21
GENUINE ARTICLE#: 108AZ
PUBLISHER: ACADEMIC PRESS LTD, 24-28 OVAL RD, LONDON NW1 7DX, ENGLAND

ISSN: 0882-4010
LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: The genes encoding homologous 85 kDa **outer membrane** proteins of Neisseria gonorrhoeae and Neisseria meningitidis have been cloned and sequenced. The gonococcal gene, **omp85**, was identified by screening a genomic library with an antiserum raised against purified gonococcal **outer membranes**. The gene encoded a 792 amino acid protein, **Omp85**, having a typical signal peptide and a carboxyl-terminal phenylalanine characteristic of **outer membrane** proteins. The amino acid sequence was similar to that of the D15 protective surface antigen (D-15-Ag) of Haemophilus influenzae, and the Oma87 of Pasteurella multocida. Southern analysis demonstrated that **omp85** was present as a single copy in N. gonorrhoeae and N. meningiditis. PCR amplification was used to obtain a clone of the N. meningitidis **omp85** homologue. Sequence analysis revealed that the N. meningitidis **Omp85** was 95% identical to the N. gonorrhoeae **Omp85**. (C) 1998 Academic Press.

6/3,AB/3 (Item 1 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

01907206
Omp85 proteins of Neisseria gonorrhoeae and Neisseria meningitidis, compositions containing same and methods of use thereof
Op85 Proteine von Neisseria Gonorrhoeae und Neisseria Meningitidis, Zusammensetzungen, die diese enthalten und Verfahren zur Anwendung davon
Proteines **omp85** de neisseria gonorrhoeae et de neisseria meningitidis, compositions renfermant lesdites proteines et methodes d'utilisation correspondantes
PATENT ASSIGNEE:
The University of Montana, (1637192), University Hall 116, Missoula, MT 59812, (US), (Applicant designated States: all)
INVENTOR:
Judd, Ralph C., 316 Wickiup, Florence, Montana 59833, (US)
Manning, Scott D., 2205 Westfield, Missoula, Montana 59801, (US
LEGAL REPRESENTATIVE:
Hale, Stephen Geoffrey et al (31411), Bromhead Johnson, Kingsbourne House, 229-231 High Holborn, London WC1V 7DP, (GB)
PATENT (CC, No, Kind, Date): EP 1535928 A2 050601 (Basic)
APPLICATION (CC, No, Date): EP 2005003039 981022;
DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE
RELATED PARENT NUMBER(S) - PN (AN):
EP 1123403 (EP 98953873)
INTERNATIONAL PATENT CLASS: C07K-014/22; C12N-015/31; A61K-039/095

ABSTRACT EP 1535928 A2
Nucleic acid and amino acid sequences of the **Omp85** proteins of N. gonorrhoeae and N. meningitidis, and fragments thereof, as well as homologs and fusion products thereof, are useful in vaccine compositions for use in the protection of subjects against Neisserial disease such as non-symptomatic gonococcal infection or symptomatic disease and non-symptomatic meningococcal infection and symptomatic disease. Antibodies developed to these proteins and peptides are also useful in the vaccine compositions.

ABSTRACT WORD COUNT: 72
NOTE:
Figure number on first page: NONE

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200522	437
SPEC A	(English)	200522	17113
Total word count - document A			17550
Total word count - document B			0
Total word count - documents A + B			17550

6/3,AB/4 (Item 2 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

01160218
OMP85 PROTEINS OF $i(NEISSERIA GONORRHOEAE) AND $i(NEISSERIA MENINGITIDIS), COMPOSITIONS CONTAINING SAME AND METHODS OF USE THEREOF
OMP85 PROTEINE VON NEISSERIA GONORRHOEAE UAND NEISSERIA MENINGITIDIS, ZUSAMMENSETZUNGEN DIE SIE ENTHALTEN UND VERFAHREN ZUR ANWENDUNG DAVON
PROTEINES **OMP85** DE $i(NEISSERIA GONORRHOEAE) ET DE $i(NEISSERIA MENINGITIDIS), COMPOSITIONS RENFERMANT LESDITES PROTEINES ET METHODES D'UTILISATION CORRESPONDANTES
PATENT ASSIGNEE:
THE UNIVERSITY OF MONTANA, (1637190), 116 Main Hall, Missoula, MT 59812, (US), (Applicant designated States: all)
INVENTOR:
JUDD, Ralph, C., 316 Wickiup, Florence, MT 59833, (US)
MANNING, Scott, D., 2205 Westfield, Missoula, MT 59801, (US
LEGAL REPRESENTATIVE:
Hale, Stephen Geoffrey et al (31413), Bromhead Johnson, Kingsbourne House, 229-231 High Holborn, London WC1V 7DP, (GB)
PATENT (CC, No, Kind, Date): EP 1123403 A1 010816 (Basic)
WO 200023595 000427
APPLICATION (CC, No, Date): EP 98953873 981022; WO 98US22352 981022
DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE
RELATED DIVISIONAL NUMBER(S) - PN (AN):
(EP 2005003039)
INTERNATIONAL PATENT CLASS: C12N-015/31; C12N-015/62; C07K-014/22; C07K-016/12; A61K-039/095; G01N-033/53; G01N-033/68; C12Q-001/68
NOTE:
No A-document published by EPO
LANGUAGE (Publication,Procedural,Application): English; English; English

6/3,AB/5 (Item 1 from file: 357)
DIALOG(R)File 357:Derwent Biotech Res.

0368913 DBR Accession No.: 2005-14619 PATENT
New isolated nucleic acid encoding **outer membrane** protein **85** (**Omp85**) of Neisseria gonorrhoeae or Neisseria meningitidis, useful for preventing, treating, or diagnosing non-symptomatic gonococcal infection or meningococcal infection - recombinant protein production and antibody for use in disease therapy

and gene therapy
AUTHOR: **JUDD R C; MANNING D S**
PATENT ASSIGNEE: UNIV MONTANA 2005
PATENT NUMBER: US 20050074458 PATENT DATE: 20050407 WPI ACCESSION NO.: 2005-272369 (200528)
PRIORITY APPLIC. NO.: US 606618 APPLIC. DATE: 20030626
NATIONAL APPLIC. NO.: US 606618 APPLIC. DATE: 20030626
LANGUAGE: English
ABSTRACT: DERWENT ABSTRACT: NOVELTY - A nucleic acid molecule comprises a fully defined 2379 or 2394 bp sequence (SEQ ID NO. 1 or 3) given in the specification, a sequence capable of hybridizing to it, or its fragment, when expressed in a host cell produces a polypeptide that induces antibodies to N. gonorrhoeae or N. meningitidis, under the control of suitable regulatory sequences which direct expression of the polypeptide in the host cell, is new. DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following: (1) an immunogenic composition comprising (a) a polypeptide or peptide selected from (i) the polypeptide comprising a fully defined 792 amino acid sequence (SEQ ID NO. 2), a homologue, or a fragment of at least 8 consecutive amino acids in length, which induces antibodies to N. gonorrhoeae in a mammalian subject, or (ii) a homologue of a sequence comprising a fully defined 797 amino acid sequence (SEQ ID NO. 4), or a fragment of at least 8 consecutive amino acids in length, which induces antibodies to N. gonorrhoeae in a mammalian subject; and (b) a pharmaceutical carrier; (2) an immunogenic composition comprising (a) a nucleic acid sequence selected from (i) SEQ ID NO. 1, a sequence capable of hybridizing to it, or a fragment, which when expressed in a host cell, produces a polypeptide that induces antibodies to N. gonorrhoeae, or (ii) SEQ ID NO. 3, a sequence capable of hybridizing to it, or a fragment, which when expressed in a host cell, produces a polypeptide that induces antibodies to N. meningitidis; and (b) a pharmaceutical carrier; (3) a diagnostic composition comprising at least one component selected from: (a) the polypeptide of SEQ ID NO. 2, a homologue, or a fragment of at least 8 consecutive amino acids in length, which induces antibodies to N. gonorrhoeae in a mammalian subject; (b) the polypeptide of SEQ ID NO. 4, a homologue or a fragment of at least 8 consecutive amino acids in length, which induces antibodies to N. gonorrhoeae in a mammalian subject; (c) a nucleic acid sequence of SEQ ID NO. 1, a sequence capable of hybridizing to it, or a fragment, which when expressed in a host cell, produces a polypeptide that induces antibodies to N. gonorrhoeae; (d) a nucleic acid sequence of SEQ ID NO. 3, a sequence capable of hybridizing to it, or a fragment, which when expressed in a host cell, produces a polypeptide that induces antibodies to N. meningitidis; (e) a polypeptide of (a) or (b) that contains, or a nucleic acid sequence of (c) or (d) that encodes, 1-4 conservative amino acid replacements in the amino acid sequence of SEQ ID NO. 2 or 4; (f) a polypeptide of (a) or (b) that contains, or a nucleic acid sequence of (c) or (d) that encodes, a polypeptide that has at least 85% identity with the sequence of SEQ ID NO. 2 or 4; (g) a polypeptide of (a) or (b) that contains, or a nucleic acid sequence of (c) or (d) that encodes, a second polypeptide or protein; (h) a polypeptide fragment of (a) or (b) that contains, or a nucleic acid sequence of (c) or (d) that encodes, a peptide fragment that comprises an amino acid sequence within amino acids 720-745 of SEQ ID NO. 2 or 4; or (i) a polypeptide of (a) or (b) that contains, or a nucleic acid sequence of (c) or (d) that encodes, a peptide fragment that comprises an amino acid sequence within amino acids 1-178 of SEQ ID NO. 2 or 4; and (i) a suitable detectable label or detection system associated with it; and (4) a host cell transformed with the molecule

above. WIDER DISCLOSURE - Also disclosed are: (1) an isolated **Omp85** of N. gonorrhoeae or N. meningitidis; (2) a method of recombinantly expressing the **Omp85** of N. gonorrhoeae or N. meningitidis; (3) a method for preparing an **Omp85** protein of N. gonorrhoeae or N. meningitidis; (4) an isolated antibody which is directed against **Omp85** of N. gonorrhoeae or N. meningitidis; (5) an anti-idiotype antibody specific for the antibody above; (6) a vaccine composition comprising an amount of an **Omp85** protein of N. gonorrhoeae or N. meningitidis, or a nucleic acid encoding an **Omp85** protein of N. gonorrhoeae or N. meningitidis; (7) a method of vaccinating a human or animal against gonococcal or meningococcal infection or disease; (8) a method of diagnosing a non-symptomatic gonococcal or meningococcal infection or symptomatic disease in a human or animal; (9) a therapeutic composition useful for treating humans or animals with non-symptomatic gonococcal or meningococcal infection or symptomatic disease; (10) a method for treating non-symptomatic gonococcal or meningococcal infection or symptomatic disease in a mammalian host; (11) a method of identifying compounds which specifically bind to **Omp85** of N. gonorrhoeae or N. meningitidis; and (12) a compound identified by the method above. BIOTECHNOLOGY - Preferred Composition: In the composition above, the polypeptide is a sequence that contains 1-4 conservative amino acid replacements in SEQ ID NO. 2 or 4. It is also a homologue having at least 85% identity with SEQ ID NO. 2 or 4. The polypeptide or peptide is fused to a second polypeptide or protein, where the second polypeptide or protein is an antigen or fragment from a heterologous or a homologous pathogenic species. The fragment comprises an amino acid sequence within amino acids 720-745 of SEQ ID NO. 2 or 4, or an amino acid sequence within amino acids 1-178 of SEQ ID NO. 2 or 4. The nucleic acid sequence has at least 85% identity with SEQ ID NO. 1 or 3. The nucleic acid sequence encoding the polypeptide is fused to a second nucleic acid sequence encoding a second polypeptide or protein. The composition further comprises a suitable nucleic acid delivery vehicle. Preferably, the composition is a diagnostic reagent or a diagnostic kit. ACTIVITY - Antibacterial. No biological data given. MECHANISM OF ACTION - Gene Therapy; Vaccine. USE - The nucleic acid and amino acid sequences of **Omp85** protein of N. gonorrhoeae or N. meningitidis are useful as vaccine compositions, therapeutic compositions, and diagnostic compositions for preventing, treating, or diagnosing non-symptomatic gonococcal infection or symptomatic disease and non-symptomatic meningococcal infection and symptomatic disease. ADMINISTRATION - Dosage is 0.1-5 ml of the vaccine composition. Administration can be through parenteral including intramuscular, subcutaneous, or oral routes. EXAMPLE - The meningococcal **omp85** was obtained by PCR amplification. The design of PCR primers was based on gonococcal **omp85** and flanking sequences. The positive-sense **omp85** PCR primer contained the first five codons of the gonococcal **omp85** with an EcoRI restriction site and two extra nucleotides added to the 5' end. The negative-sense **omp85** PCR primer contained the reverse-compliment of six codons of the gonococcal sequence located 244 base pairs 3' of **omp85** termination codon. These primers were used in a PCR reaction with purified Neiseria meningitidis HH DNA as template. The meningococcal **omp85** PCR product was ligated into pUP1 to yield pMCOomp85. The sequence of the meningococcal **omp85** was obtained essentially as described for the gonococcal **omp85**. The meningococcal **omp85** was found to encode a 797 amino acid polypeptide with predicted molecular weight of 88.5 kDa. (41 pages)

6/3,AB/6 (Item 2 from file: 357)
DIALOG(R)File 357:Derwent Biotech Res.

0254776 DBR Accession Number: 2000-09266 PATENT
New isolated **outer membrane** protein **85** of Neisseria gonorrhoeae and N. meningitidis useful for vaccine, therapeutic and diagnostic compositions for gonococcal or meningococcal infections - vector-mediated gene transfer and expression in Escherichia coli, antibody, anti-idiotype antibody and DNA probe for recombinant vaccine

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PATENT NUMBER: WO 200023595 PATENT DATE: 20000427 WPI ACCESSION NO.: 2000-339694 (2029)
PRIORITY APPLIC. NO.: WO 98US22352 APPLIC. DATE: 19981022
NATIONAL APPLIC. NO.: WO 98US22352 APPLIC. DATE: 19981022
LANGUAGE: English

ABSTRACT: Isolated **outer membrane** proteins (792 and 797 amino acids) of Neisseria gonorrhea and Neisseria meningitidis, respectively, with an apparent mol.weight **85** ,000 are new. Also claimed are: nucleic acid sequences (2,379 or 2,394 bp) encoding the protein; nucleic acid molecules containing the nucleic acid sequences under the control of promoters which direct expression of the **Omp85** or fragment in a selected host cell; host cells transformed with the nucleic acid molecules; recombinant viruses containing the nucleic acid molecules; preparation and recombinant expression of the protein; antibodies; anti-idiotype-antibodies; diagnostic reagents containing nucleic acid sequences; diagnostic reagents containing the antibodies; vaccines containing the proteins or nucleic acids; identifying compounds which specifically bind to the proteins; a kit for diagnosing infection with N. meningitidis; compounds identified; and identifying a pharmacomimetic. The proteins and nucleic acid can be used for non-symptomatic gonococcal infection and symptomatic disease diagnosis and therapy. The nucleic acids can also be used in the development of diagnostic and antisense DNA probes. (98pp)

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S1        495   AU=(JUDD, R? OR JUDD R?)
S2       1293   AU=(MANNING, S? OR MANNING, D? OR MANNING S? OR MANNING D?)
S3          7   S1 AND S2
S4          6   (S1 OR S2) AND (OMP85 OR (OMP OR OUTER(W)MEMBRAN?)(S)(85 OR
                85KD?))
S5          7   S3 OR S4
S6          6   RD (unique items)
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